

a1
transmitting the received signal from the electric motor to the controller.

a2
31. (once amended) An electrical interface circuit comprising a controller circuit electrically coupled to a motor control circuit, said controller circuit comprising a transmitter circuit and a receiver circuit, said motor control circuit comprising a transmitter circuit and a receiver circuit, said interface circuit electrically connected to a controller and electrically connected to an electric motor, said controller circuit configured to convert a voltage signal to at least one of an infrared signal and an RF signal.

a3
54. (once amended) An electrical interface circuit for a HVAC system comprising an electronically commutated motor, said electrical interface comprising a controller circuit electrically connected to a motor control circuit using a serial four-wire communications cable, said controller circuit comprising a transmitter circuit and a receiver circuit, said controller circuit configured to convert a voltage signal to at least one of an infrared signal and an RF signal, said motor control circuit comprising a transmitter circuit including a first optocoupler and a receiver circuit including a second optocoupler, said interface circuit electrically connected to a controller and electrically connected to said electronically commutated motor, wherein said first and second optocouplers configured to isolate signals between said motor control circuit and said electronically commutated motor and said electrical interface configured to interrogate said electronically commutated motor to acquire status and diagnostic information.

a4
58. (once amended) An electrical interface circuit for a HVAC system comprising an electronically commutated motor, said electrical interface comprising a controller circuit electrically connected to a motor control circuit using a digital wireless interface, said controller circuit comprising a transmitter circuit and a receiver circuit, said controller circuit configured to convert a voltage signal to at least one of an infrared signal and an RF signal, said motor control circuit comprising a transmitter circuit including a first optocoupler and a receiver circuit including a second optocoupler, said interface circuit electrically connected to a controller and electrically connected to said electronically commutated motor, wherein said first and second optocouplers configured to isolate signals between said motor control circuit and said electronically commutated motor and said electrical interface configured to interrogate said electronically commutated motor to acquire status and diagnostic information.
